

A Work Project, presented as part of the requirements for the Award of a Master Degree in
International Management from Nova School of Business and Economics

**THE TOBACCO INDUSTRY:
THE FUTURE OF SMOKING
WITH THE INTRODUCTION
OF NEW GENERATION PRODUCTS**

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Abstract

Will the new generation products in regards to smoking be successful? We answer this question by (i) understanding what the new products are, (ii) extensively analyzing the literature addressing the evolution of the tobacco industry – its history, players, health concerns and perception on the customer side, (iii) understanding who the consumer is and (iv) benchmarking our investigation with other countries where this technology is more present. We conclude that as the products are right now do not have enough competitive advantage to substitute the cigarette, only to be used as complements.

Keywords: Tobacco, new generation products, health, internationalization.

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1. Introduction

Tobacco has been used for more than five hundred years. Its consumption—whether smoked or chewed—is known to be detrimental to health. According to the World Health Organization, almost 6 million people die every year as a consequence of its consumption¹. Consumers are increasingly aware of this and as such tobacco firms have been developing other ways of satisfying consumers' needs. In this regard, several developments took place, giving rise to the so-called Next Generation Products (NGPs). These take several forms: (i) products that heat the tobacco instead of burning it (Heat Not Burn technology – HNB); (ii) vaporizers (or electronic cigarettes), which heat a nicotine infused liquid and turn it into vapor, thus delivering nicotine to the lungs, and (iii) oral tobacco and nicotine products (the so called snus, which are mainly relevant in Norway and Sweden).

According to Statista, the cigarettes segment alone generated worldwide revenue of US\$ 568.8 billion in 2017² and the latest report by The Tobacco Atlas states that about 5.8 trillion cigarettes were smoked worldwide in 2014. However, this number has been decreasing. In 2016 consumption decreased by 300 billion cigarettes³. In the EU, according to the most recent study on the “Attitudes of Europeans towards tobacco and electronic cigarettes”⁴, between 2006 and 2017 smokers of tobacco products (boxed cigarettes, hand-rolled cigarettes, cigarillos, cigars or pipe) declined by six percentage points, a result that mirrors Portugal's market—where about 10.4 billion cigarettes are sold per year and the market is worth around 1900Mn €—which has been declining on average 0.39% per year over the last five years.

When tobacco began to be widely used, it took the form of a simple leaf that consumers chewed. Only after some progress in mechanical expertise did tobacco start to be consumed as is mostly the case nowadays, as a cigarette. Yet historically its consumption also took other forms, such as cigars, pipes and hookahs. Nevertheless, cigarettes have been the most common way of consuming tobacco for over 100 years. After this long and very successful life as a consumer product, cigarette consumption is now in decline. This leads us to ask the following research questions: *Is there a place for NGPs in the tobacco world? Will the NGPs create a new trend and revolutionize the industry? Or, instead, will it unavoidably decline?*

In order to answer these questions, we will approach the research from four angles. We will first survey the available literature to then focus on the characteristics of the product itself. Then, we will study demand, to finally look at benchmarks arising from other countries. By looking at the available literature we will pinpoint the trends in this industry, who the major players are, and how the industry has been changing. By surveying the supply side of the industry, we will better understand the product and how it has adapted to face the current threat posed by health concerns. We will not only investigate the changes in the product over time, but also take a look at what the future will bring. To understand better the consumer, we will conduct a survey on XXX people and see what motivates each one to make their choices. Finally, we will compare our results with those from other countries in order to find common trends.

2. Types of products

There exist multiple ways of satisfying the need for nicotine. While most the most common is the traditional cigarette, there are also new products that are drawing users' attention.

Cigarettes

Cigarettes are the most common method of consuming tobacco. This is often how users start smoking. Repeated purchase are prompt be addiction to nicotine leading to dependency.

There are several types of cigarettes. They can be filtered or unfiltered, be flavored with aromas other than that of tobacco, and display a capsule for extra flavor and feeling. They may also vary in the type of paper that involves the cigarette itself.

New Generation Products (NGPs)

NGPs are of two sorts: some products are tobacco related and others substitute tobacco for its chemical byproduct, with the aim of directly infusing the user with what it.

Tobacco heating products

These devices heat the tobacco, instead of burning it, in order to generate an aerosol that contains nicotine with a flavor of tobacco, which the consumer inhales. Because the tobacco is not burned but only heated, the aerosol contains a lower level of toxins than those found in the usual smoked products.

Vapor products

These products rely on rechargeable, battery-powered devices that heat a so-called e-liquid—a liquid formulation that may (or may not) contain nicotine and different sorts of additives added to offer a different smoking experience. The most common technology used in these cigarettes is termed “coil and wick”, where the coil heats a cotton wick that contains the liquid, vaporizing it. This vapor is then inhaled.

No tobacco is burned during this process. As a consequence, the vapor contains lower levels of toxins than those arising from the burning of a usual cigarette, suggesting a reduction in the harm caused, an assertion has not been scientifically proven yet.

The vaping device can consist of an open or closed system. An open system enables the vaper to refill the e-liquid and make its own mixes, while a closed system only allows for specific cartridges to be inserted in the device.

Cigars and Cigarillos

Similar to cigarettes, cigars and cigarillos only differ in the type of cover that involves the tobacco. These can be dry tobacco leaves or brown tobacco-based paper. Size wise, cigars are larger than cigarettes while cigarillos are usually smaller. Neither are usually filtered.

Pipes

A device specifically made for smoking tobacco that is comprised by a chamber where the tobacco is placed, from which a thin shank emerges. They are historically associated with religious rituals and are nowadays most commonly used by older tobacco consumers. Demand wise they have a residual importance in the tobacco industry.

Shishas and Hookahs

Originated in India, this is a multi-stemmed instrument that is used for smoking flavored tobacco. The process consists in heating water that is inside the instrument and having its vapor pass through flavored tobacco, resulting in flavored smoke.

Chewing tobacco

This type of consumption is done by chewing the tobacco leaves—that is mixed with other ingredients—for a long time period. The juice from the tobacco is absorbed into the bloodstream. This has the same effect on the human body as the traditional way of smoking and is equally harmful.

3. Literature review

The tobacco industry: history, production and route to market:

Much has been recently written regarding the tobacco industry as a result of growing health concerns. The industry encompasses the firms responsible for growing, preparing, shipping, advertising and distributing the tobacco and its related products. According to the most recent Tobacco Data Report, 5.5 trillion cigarettes are smoked yearly, valuing the industry at around US\$680 billion. Moreover, around 20% of all adults are clients.

Tobacco was first discovered and used in the Americas and its popularity increased widely with Spain's colonization of the new world, who introduced the product to Europe. The industrial revolution led to the mechanized production of cigarettes. As a consequence, smoking gained increased popularity in both the New World and Europe, inducing unparalleled growth. Sales kept rapidly growing until scientific studies in the twentieth century demonstrated smoking's negative health effects.

The yearly cultivation of tobacco yields seven million tons of leafs. These leafs are selected, processed and then aged, before being blended and loaded into cigarette cartridges. After manufacturing, cigarettes are packed in boxes (usually of twenty units), creating a pack. These packs are then sold in volumes of mostly ten units. After they leave the factory, cigarettes are

shipped to the custom units of each country, where the government holds them for the owner company for a limited amount of time. After the owner company orders the customs clearance of the products, a tax stamp is affixed on the goods, leading the firm to incur a tax liability that can reach 80% of the final price of the pack. Cigarettes are then shipped to another warehouse that distributes the product to wholesalers. Wholesalers have sale representatives that distribute tobacco to retailers (earning a margin of around 8% of the final price). These then sell it to the final consumer, either directly or through vending machines (with a margin of around 4% of the final price). Although this route to market may vary from country to country, depending mainly on the regulatory framework, it describes the most common path from production to final consumption.

Key players

a. Philip Morris International (PMI)

The 171 year old company is an American multinational cigarette and tobacco manufacturing company that sells its products in 180 countries outside its home country. Its most recognized and bestselling product is Marlboro, which is paramount in the generation of an yearly revenue of US\$78.100 billion. Regarding New Generation Products, Philip Morri's biggest bet is iQos, a heat-not-burn device, which has been gaining high acceptance worldwide.

Controversy has surrounded tobacco companies in the last decades. PMI in being one of them, it has recently changed its aim to creating a "Smoke Free World", recognizing that tobacco is a leading cause of death. It aims to "end smoking in this generation" by focusing more and more on NGPs.

b. British American Tobacco (BAT)

Being the largest publicly traded tobacco company in the world, BAT is a British multinational with yearly revenue of US\$20,300 billion. In large part, this is achieved through the Lucky Strike and Rothmans brands. BAT's main NGP product, Glo, is a tobacco heating device that competes directly with PMI's iQos, but has yet to show meaningful results.

c. Imperial Tobacco Group (ITG)

With yearly revenue of £30,247 billion, Imperial Brands is the world's largest producer of cigars, fine cut tobacco (more appropriate for rolling) and tobacco papers. With a production of over 320 billion cigarettes per year, their best known brands are Davidoff, West and Golden Virginia, as well as Cohiba and Montecristo. ITG acquired Blu when it noticed the evolution toward NGPs. Blu is an e-cigarette with a closed system whose sales have been growing exponentially in recent years.

d. Japan Tobacco Inc. (JTI)

Having had a revenue of ¥2.14 trillion in the last year, JTI was originally a state owned company that had the monopoly of production and trading of tobacco products in Japan. It operates in more than 120 countries and the most iconic brand is Camel. When it comes to NGPs, JTI operates in both main categories – for HNB products it possesses a brand named Ploom, while in the e-cigarette segment it has the brand Logic..

e. China National Tobacco Corporation (CNTC)

It is estimated that this Chinese manufacturer and supplier has a yearly revenue around US\$170 billion. It holds a virtual monopoly of the Chinese market, which accounts for approximately 40%

of the world's total cigarette consumption. CNTC company has few sales outside China, but high cigarette consumption in its home country make it one of the major tobacco firms.

Health concerns with tobacco

Smoking is the number one cause of preventable death in the world. However, tobacco control measures are currently insufficient to put a stop to tobacco consumption. According to the Surgeons General report on smoking, more than 20 million Americans have died in the last 20 years as a result of smoking. While most of tobacco's victims were adults with a history of smoking, 2.5 million were non smokers who were exposed to the tobacco smoke and developed diseases such as lung cancer or heart disease, and 100,000 were babies who died from sudden infant death syndrome or complications caused by prematurity, low birth weight, or other conditions caused by parental smoking, mainly by the mother of the children. Previous editions of this report have tracked the evolution of the common cigarette throughout the years to the current highly addictive, highly engineered and deadly product that contains hundreds of chemicals that are harmful on their own, that become even more dangerous when they are burned. This underlies the fact that although people smoke less today, today's cigarette smokers have a much higher risk of developing lung cancer and chronic obstructive pulmonary disease than was the case fifty years ago.

Some progress has been made in controlling tobacco use. New approaches and laws have evolved from simple measures, such as small text warnings, to implementing measures that aim to lower the number of smokers, such as restricting the act of smoking indoors or in certain areas, offering support for quitting smoking, restricting marketing practices and increasing specific taxes.

We conclude that smoking has caused numerous preventable deaths.

Harms and benefits of e-cigarettes

The United States of America's Congress has ordered the National Academics of Sciences⁷, Engineering, and Medicine (NAS) to gather information of the effects of e-cigarettes on users, a new trend that worries the Government, especially because there is little condensed information on this subject.

In regards to the impact on the youth, the study concluded that young people are the main users of this technology and use it more frequently than older people. The NAS study also found that there is a strong association between using electronic cigarettes and trying out smoking for the first time. However, it is not clear yet whether people who use e-cigarettes will continue doing it so over the long term as this trend is too recent to make assumptions. What alarms the study writers the most is the fact that the liquids that these machines use can have a multitude of flavors and nicotine levels, and when you combine this with the fact that the product is used by mainly teenagers and that it has been proven that nicotine is especially dangerous the younger the person is, we create a dangerous cocktail.

The study concludes that although most e-cigarettes contain other chemicals besides nicotine, there is generally far less exposure compared to traditional cigarettes. Furthermore there is some evidence that the level of addiction to e-cigarettes highly depends on the device, the brand, the flavor and the quantity of nicotine and that this level of addiction is lower than for regular cigarettes.

Experts of the American Cancer Society reacted on this report and underlined the fact that there is a clear association between youth and the use of electronic cigarettes, and the high possibility of later switching to regular cigarettes. They also agree that although these are not

harmless they may have a lighter impact on the consumer's health than the traditional cigarettes, a fact that cannot be completely checked due to the fact that the electronic cigarettes were only introduced to the market in 2006.

Harms and benefits of Heated Tobacco Products

As previously mentioned, these are the devices that heat the tobacco to a point in which they start producing aerosols which contain nicotine and other chemicals, and are consequently inhaled. They are constructed in a way that tries to imitate the traditional cigarette and aim to transmit the idea of being a less harmful product.

Some studies have been done revolving the harm these products do to the users and most came to the conclusion that it is less harmful than traditional smoking because it exposes the smoker to less harmful products. The problem with these studies is the fact that they were funded by tobacco companies and so have little to no credibility. There is a clear need for more independent studies on this subject

Views of Europeans on tobacco and electronic cigarettes

It is not only the US Congress that is worried about this new trend and wants to know more about the views of its citizens on this subject. The European commission has requested in March 2017 a survey to be conducted on its citizens with the aim of understanding the "Attitudes of Europeans towards tobacco and electronic cigarettes", since this is an epidemic that must be controlled. The specific goal of the survey is to assess the tobacco use and exposure in public areas, to better understand the consumer will to smoke and to so put an end to this epidemic through more adapted measures. Furthermore, this survey also explores advertising and use of electronic cigarettes.

What the study concludes is that in the EU, there has been a decrease in consumption of tobacco products but since 2014 this number has remained stable, and around one quarter of all European citizens currently use them. Going more into detail in the geographical differences, the general picture is that the more south you go in the continent, the more likely it is the habitants of said country to smoke and the less likely it is to find people who managed to stop smoking. The average smoker persona is male, young, unemployed, low income and with little education.

When it comes to smoking traditional cigarettes, smoking remains a regular habit, with 90 % of individuals who already smoke, smoking on a daily basis, being the boxed cigarettes the most common way of doing so.

Regarding E-Cigarettes, they have been tried by 15% of respondents in the EU. Over half of these think that these products are harmful to health and 60% of the ones who already tried it did so in an attempt to quit or to smoke less – although they tried to stop smoking, the vast majority was not able to quit or reduce smoking with these new devices. The other reasons for experimenting vary from believing that vaping was less harmful than tobacco (31%), the lower cost (25%), the fact that the smoker can do so in places where regular tobacco is forbidden (15%) and 12% also did it so because of the offer in flavors.

Among those who use electronic cigarettes, two thirds use them daily and 20% use them on a weekly basis. Overall, the study tells us that 1% of respondents across the EU use e-cigarettes on a daily basis, a number that has been increasing in the past years. Out of those who use the electronic cigarette at least once per month, more than half (64%) would rather smoke with a flavor different from the tobacco one (i.e. fruit, mint, vanilla, etc.) which can tell us that the consumer is growing tired of the classic tobacco flavor and wants to optimize their experience with their favorite

taste. As regards to advertising to these sort of devices, most of the polled people (53%) say that, in the last year, they have not seen any sort of advertisement for e-cigarettes.

Concerning legislation and policies for cigarettes and e-cigarettes, there is a high support for the current and future policies, namely banning e-cigarettes where traditional cigarettes are forbidden, hiding tobacco products from the sight of the customer when it visits a shop and introducing plain packaging to tobacco products. The only question that divides the opinion of the inquiries is a possible ban on flavored e-cigarettes, where only 40% agree that a law like this should be put forward.

4. Methodology and data collection

The main goal of this project is to better understand the introduction of a NGP in a market, and how it will behave in the future, besides how the consumers reacts to it. With this end, we conducted an online survey aimed at the general public and collected data on this category on two different countries, by having access to internal reports of Imperial Tobacco Group.

a. Online surveys

These online surveys gave us meaningful insights on the tobacco industry, specifically in the Portuguese case. We focused on data regarding usage, frequency and preferences and made this questionnaire available through Qualtrics, which collected 110 responses in the month of December. The survey was made available to respondents via an anonymous link, sent by e-mail, shared on Whatsapp and posted on Facebook, where it was shared by several people. The sampling was restricted to Portuguese respondents as the aim of the study is to gauge the impact these NGPs can have in a market, and if we were to generalize the respondents we could get several outliers as, as mentioned before, there are multiple geographic differences when tobacco smoking is

concerned. Despite having a fairly large sample, there is still one source of bias – as the survey was solely conducted online, results might under-represent the tobacco preferences of those without online access. The data collected from these surveys was then compiled and analyzed through MS Excel.

b. Data collection - Benchmarks

By working full time in Imperial Tobacco Group, we managed to have access to two reports that go deeply in the NGP segment in two different countries – Spain and Japan. With these reports we managed to understand consumer trends, characteristics, demography and frequency of use. The first report was conducted by Fontem Ventures and is more focused on e-cigarettes, whereas the second one was done by KANTAR TNS on Japanese market and although it also analysis vaping, it is more focused on heat not burn technology as this is the most successful in said country.

5. Results

The responses to our online survey, together with the secondary sources of data for some information on benchmarks lead to the following conclusions.

a. Literature analysis

From the analyzed literature we can conclude that all smokers are being more health conscious and that this market was been slowly declining but has stagnated in the past years. When trying to find an alternative for smoking, New Generation Products present themselves as a good alternative to the common smoker who is searching for an alternative, not only due to health concerns but also because it is more practical (due to the increasing legislation restrictions on smoking on public spaces) and because it can be more pleasant due to the different flavors.

In terms of numbers, 25% of the population is believed to smoke cigarettes, 90% of these doing it on a daily basis.

When it comes to vapers, it is believed that 15% of smokers have already tried these devices, 66% of these using them on a daily basis. In total we can assume that 2% of Europeans use, on a daily basis, this sort of devices

b. Online Surveys

Sample description and limitations

52% of the surveys were filed by males. This could bias the results since the Portuguese population is comprised of 48% male.

Around 87% of respondents are less than 25 years old, whereas 25% of the Portuguese population is under 25. This can also be a source of bias since there is a clear difference between the overall acceptance of new technology between young and older people.

Consumption trends

When asked if the respondent had already smoked any tobacco product, 72% of respondents mentioned they have. Out of these, only 36% currently smoke cigarettes, 12% Heated Tobacco and 4% electronic cigarette – 44% currently do not smoke any longer.

Out of the 72% of respondents who have already smoked, 21% mentioned it was only as an experiment, while 55% smoked regularly tobacco, 11% Heat not burn products and 4% electronic cigarette.

Smoking timeline

After being asked how often enquirers smoke, 63% do so on a daily basis, while 34% do it more than once per week but not regularly. The remaining 3% do so less than once a month.

Regarding the time they have been smoking for, the majority (57%) does so for less than ten years but more than five and 31% for less than five years but more than one. This can be influenced by the low age of the majority of respondents.

Health Concerns

When asked if the ones that smoke would like to quit smoking, 72% say they would, but only 31% of these 72% are actively trying to quit the addiction.

Knowledge of NGPs

When it comes to knowing what an electronic cigarette is, 93% said they knew what it was, but only 23% out of these 93% said they have considered smoking it. In the HNB category, 82% know what this technology is but there are more people willing to try (29% out of the 82%) than there are to electronic cigarettes.

Adoption of NGPs

The main reasons that lead Portuguese smokers to try an electronic cigarette are connected to health concerns (40%) and to the low price of this product (20%). In regards to HNB, 60% smoke this technology due to health concerns, 16% for its flavor and 12% for its convenience.

Renounce of NGPs

Regarding the reasons why smokers say they stopped smoking electronic cigarettes, 50% did so because of the price, while the other half did it because they were not getting satisfied, as it “was

too different from a cigarette”. Considering HNB, 75% of the respondents said they quit due to the harmful effect it had on their health while one quarter said it was due to the lack of satisfaction.

c. Data collection - Benchmarks

i. Spain

According to an internal report conducted in Spain on March 2018 by Fontem Ventures, the branch of Imperial Tobacco Group that produces Blu (e-cigarette), there is currently a low penetration of vaping in Spain vs. tobacco (1% vs. 30%), making it so that the vaping population is between 200 and 300 thousand people. Out of these people who smoke electronic cigarettes (“vapers”), 67% are male and 33% are female, most are younger than 34 years old and belong to either medium or medium high class.

When we compare this to the typical cigarette smoker, we find some noticeable differences. There is, in Spain, around the same number of men and women who smoke, a normal distribution on the age group and a clear majority of smokers in the medium social class.

Taking a look at the consumer profile, 70% of vapers try to change to this way of smoking in an attempt to quit, 60% of smokers continue to smoke traditional cigarettes in conjunction with NGPs, and 60% of traditional cigarette smokers have not yet tried e-cigarettes. The benefits these vapers look for vary in different categories – 67% believe this is a less harmful way of satisfying the addiction, 63% see a benefit in having less smell. 58% benefit from having more consumption occasions such as places where traditional cigarettes are forbidden or unpleasant, 40% enjoy the vast offer of flavor and 30% believe that with electronic cigarettes they smoke less and/or save money. There are, however, some barriers to try or reasons for consumers to leave e-cigarettes, such as being very different from the cigarette they are used and addicted to (67%), not satisfying

them (35%), being more expensive than the traditional way (18%) and effectively not helping quitting smoking (16%).

When it comes to where these vapers buy their products, 32% say that they got it as a gift from someone else, 28% bought it online, 22% bought it in a normal tobacconist and the remaining 19% bought it in vaping dedicated shops. Out of those who bought it online, 64% say it was due to convenience and out of those who bought it at a tobacconist/vaping shop, 55% say it was due to convenience and 44% say they did so looking for guidance and feedback

In terms of consumption occasions, most use this device at home (55%), but there are also people who use this device while going out to parties and/or nightclubs (34%) or at their place of work (30%). Regarding the frequency of use and although there are a lot of occasions of consumptions, only 1/3 of vapers do so on a daily basis.

Concerning brand advocacy, what we can conclude from the report is that a high proportion users choose certain brand based on recommendation from a friend or acquainted (39%), while one quarter follow the advice and recommendation from the tobacconist and vaping shop clerk. The remainder percentage of vapers chose the brand for various reasons including the price factor, information found online and availability of refills. Overall, only 20% of consumers believe that the brand is very important, 29% give little importance and the remainder 51% think the brand has no importance when choosing which device to use.

As previously mentioned, electronic cigarettes can be flavored and have nicotine or not. In relation to flavors, the conclusions match the EU report as fruit is the most common flavor (70%), being the second most popular one tobacco and the third menthol. When choosing between having

nicotine or not, 41% of users only use liquids that contain nicotine, 38% prefer not to smoke nicotine and the remainder smoke both.

ii. Japan

On another note, consultancy company KANTAR TNS develops an analysis with semester frequency regarding the Heated Tobacco (HNB) and E-vapor market in Japan, and the May 2018 edition brings important insights that one must consider when analyzing such topic.

What we see happening in Japan is that the smoking category (cigarettes and NGP) remains constant throughout the years, around the percentage of 22 of total population with smoking age (20 or older). The interesting fact is that five years ago out of the 22% of total population, cigarettes had 22% but only represent nowadays 15% - the remainder 7% being split with people who smoke both cigarettes and hybrid devices (where the user can have both vapor and HNB) with 5% and 2% corresponding to hybrid smokers only.

The next part of the analysis consisted on interviewing 900 people who only smoked traditional cigarettes three years ago and were inquired to assess what they smoked now. The survey concluded that two thirds of this sample remained smoking only cigarettes but the remaining either shifted entirely to NGPs or uses both forms of smoking – 17% added HNB to their smoking habits but keep on smoking traditional cigarettes, 13% now only smoke HNB technology, 1% smokes only vapor, 1% vapor and cigarettes, and the remaining 2% smoke cigarettes, HNB and vapor. This means that out of a sample that smoked only cigarettes three years, 86% continues doing so but 32% now smokes HNB technology and 4% vapor.

When we take a look at how frequently e-cigarettes and HNB devices are used, we see that the occasions and frequency of consumption differ plenty. More than one third of people who tried

HNB have shifted completely to this, while in vapor this percentage goes down to 13%. Concerning an almost absolute shift (70-90% shift of smoking occasions) this percentage is 16% in HNB and around 0% in e-cigarettes. Finally, and this is where there is also a great contrast between the usage of HNB technology and e-cigarettes, the occasional use (10-60% shift of smoking occasions) is 45% in HNB and almost 70% in e-cigarettes, clearly indicating that those who experiment HNB are more likely to shift entirely to this category of products, while e-cigarette smokers are more likely to be occasional but not shift from traditional cigarettes entirely.

Out of the people who smoke the number one HNB brand in the Japan, iQOS, 33% do so because they believe that it is healthier than others tobacco products, 24% do so because it generates less smoke and 10% want to quit smoking and chose this technology as a means to reach that goal. Out of the people who smoke PloomTECH, the number one brand of vapers, 31% does so because it generates less smoke than other technologies, 19% because they like new technology and only 13% due to health concerns. We can conclude that iQOS users (and generally HNB) shift mainly due to health concerns and PloomTech for curiosity on new technology.

Regarding the age of the consumer, what this report shows is that HNB smokers are generally 5 years younger than vapor smokers, but smoke less than them.

6. Conclusion

The New Generation Products have a place in the industry but are a technology that cannot be seen as a substitute but more of a complement to traditional smoking, and its odds of being the main way of smoking are highly correlated to advancements in health and satisfaction areas. All the results obtained above point to the conclusion that electronic cigarettes and heat not burn products are used in conjunction to traditional cigarettes, due to the fact that they do not own a competitive

advantage when compared to this. Even though the online survey points to a high percentage of people that are willing to try these new technologies, many lack the initiative to do so and since laws forbid many of these initiatives by tobacco companies, people will most likely remain as they are.

While it is difficult to predict the future of this technology, it is fair to conclude that this will only own a competitive advantage when it has independent studies saying it is less harmful than traditional smoking and it satisfies the cigarette craving of the smoker.

Despite our negative conclusion, one avenue for future research becomes apparent: would consumers be more prone to shifting from electronic devices to more physical ones, such as snus, as long as it was less harmful, or is the fact that this is a new technology a key factor that will soon disappear?

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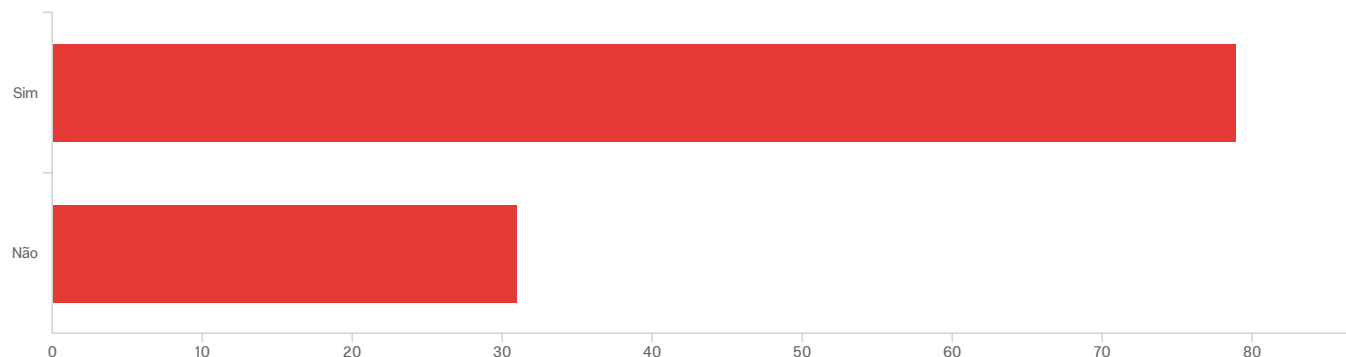
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Default Report

Tobacco NGPs

December 27, 2018 5:04 AM MST

Q1 - Fuma, ou já fumou, algum produto de tabaco?



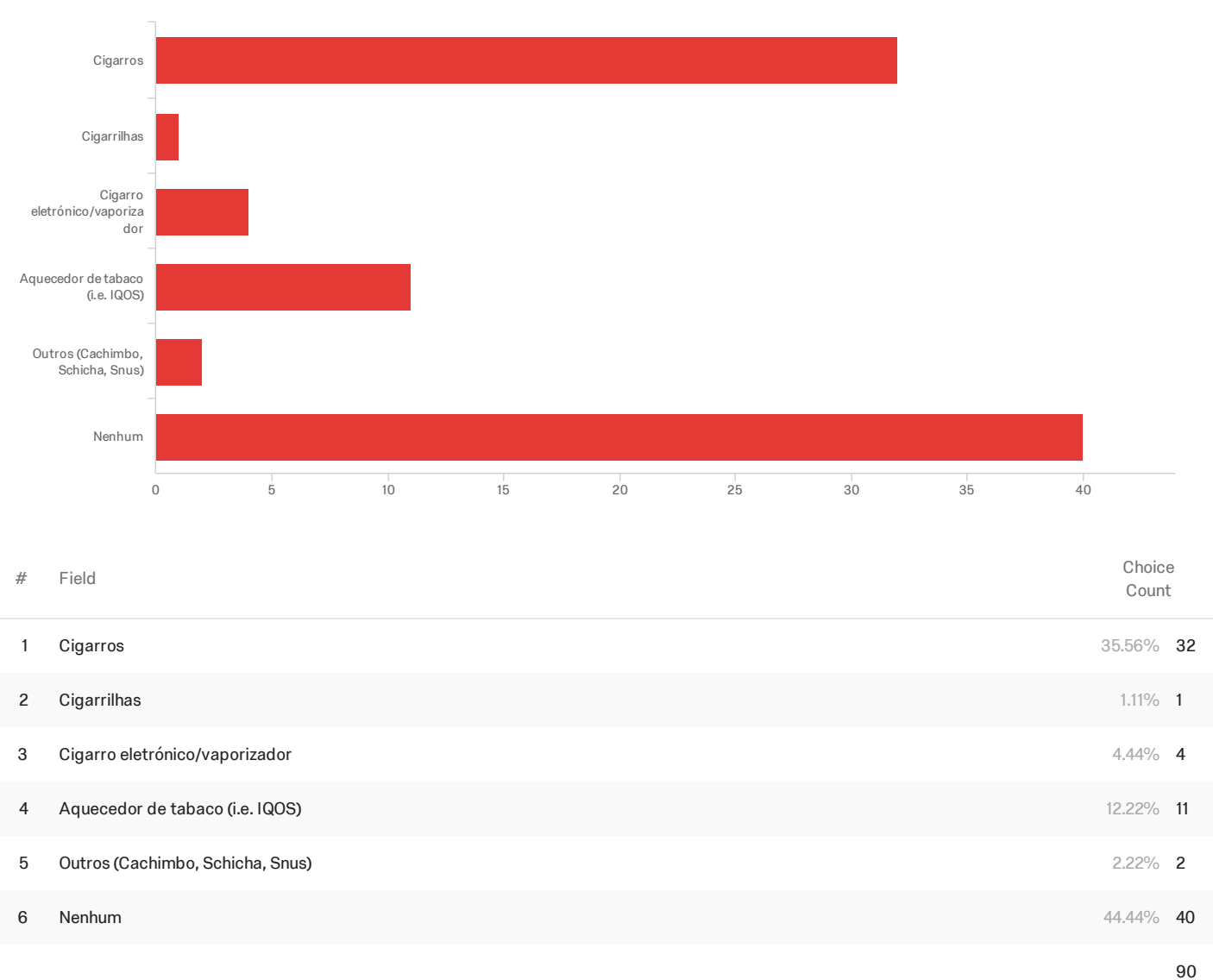
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Fuma, ou já fumou, algum produto de tabaco?	1.00	2.00	1.28	0.45	0.20	110

#	Field	Choice Count
1	Sim	71.82% 79
2	Não	28.18% 31

110

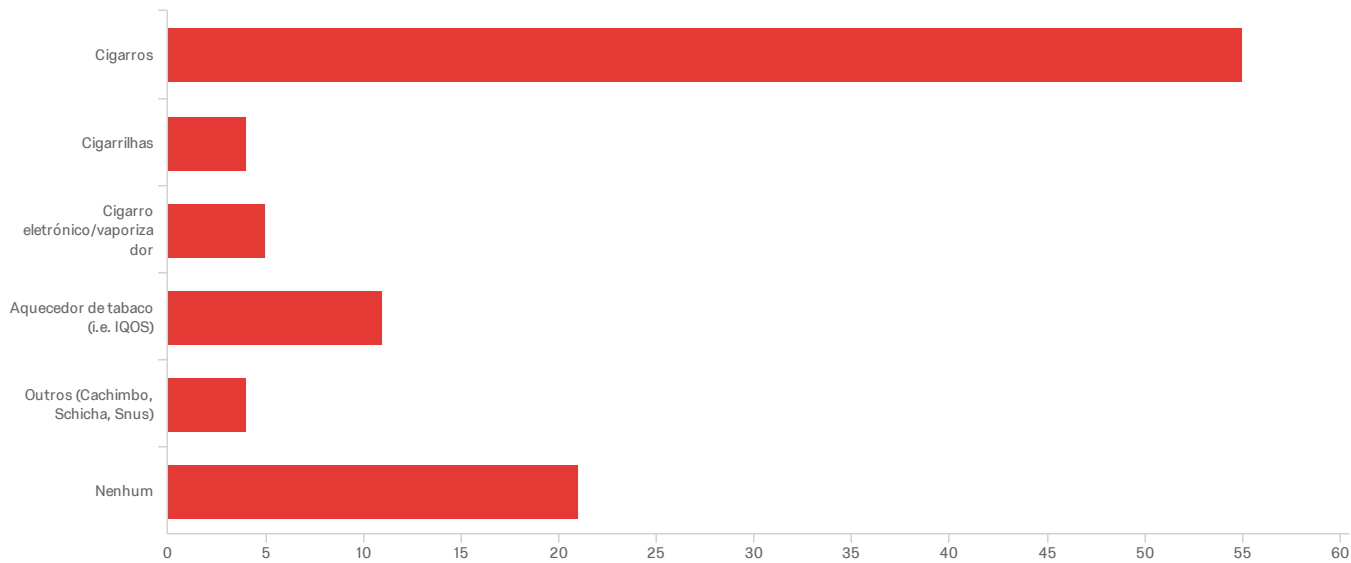
Showing rows 1 - 3 of 3

Q2 - Que produtos fuma actualmente?



Showing rows 1 - 7 of 7

Q5 - Que produtos já fumou de forma regular, isto é, sem que se tratasse de uma experiência?

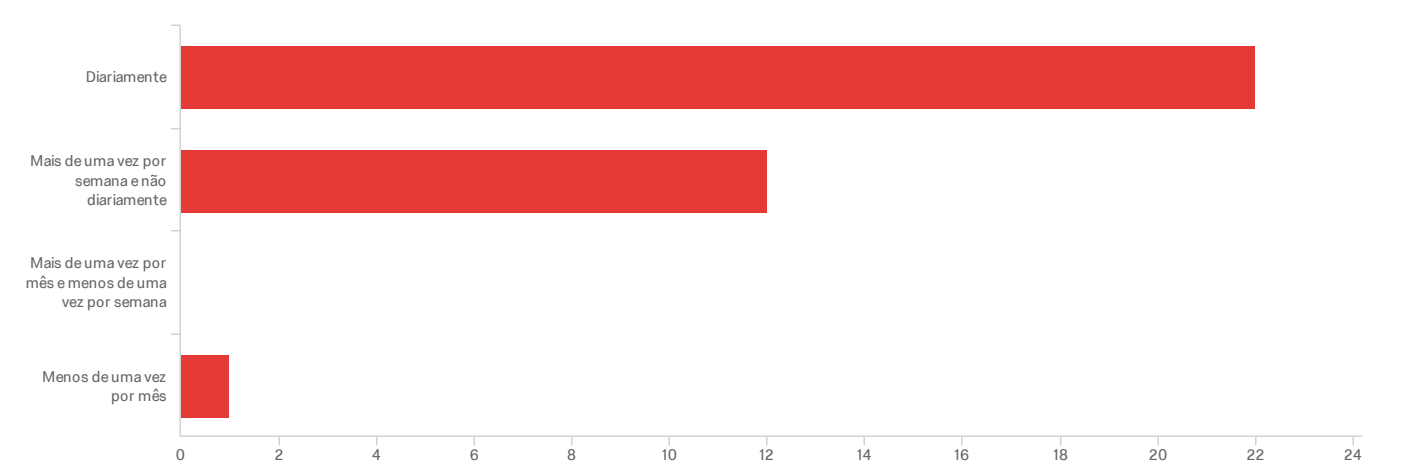


#	Field	Choice Count	
1	Cigarros	55.00%	55
2	Cigarilhas	4.00%	4
3	Cigarro eletrônico/vaporizador	5.00%	5
4	Aquecedor de tabaco (i.e. IQOS)	11.00%	11
5	Outros (Cachimbo, Schicha, Snus)	4.00%	4
6	Nenhum	21.00%	21

100

Showing rows 1 - 7 of 7

Q3 - Com que regularidade fuma?



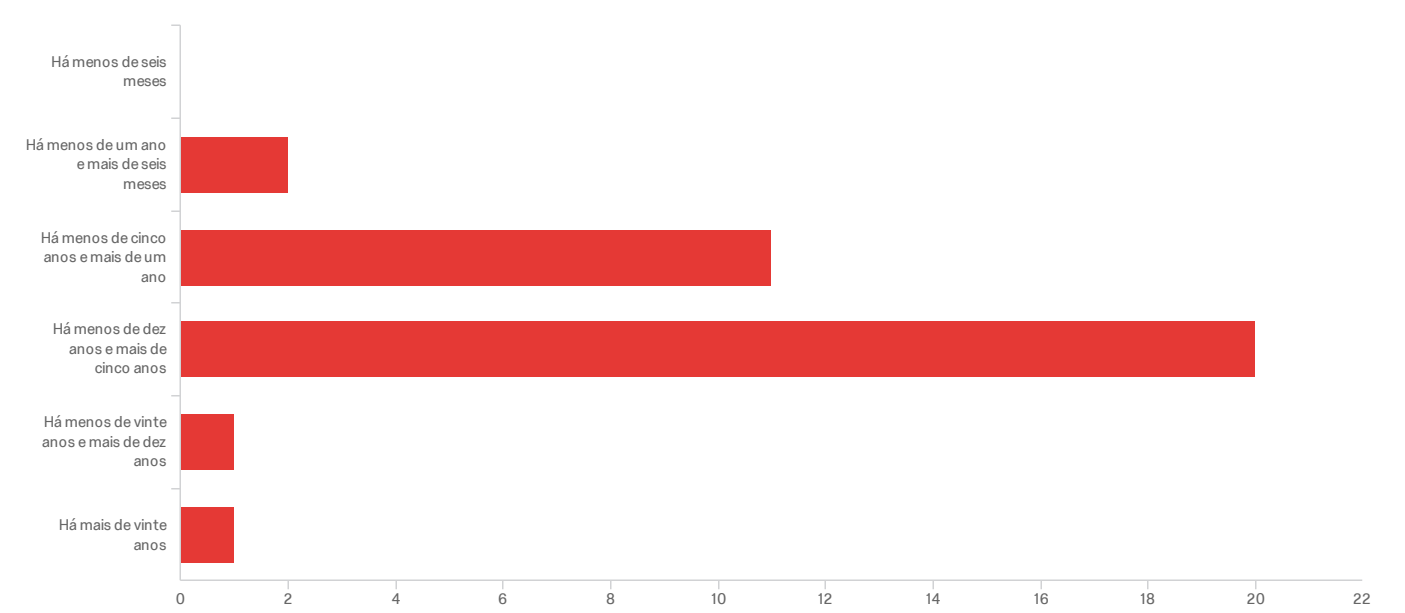
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Com que regularidade fuma?	1.00	4.00	1.43	0.65	0.42	35

#	Field	Choice Count
1	Diariamente	62.86% 22
2	Mais de uma vez por semana e não diariamente	34.29% 12
3	Mais de uma vez por mês e menos de uma vez por semana	0.00% 0
4	Menos de uma vez por mês	2.86% 1

35

Showing rows 1 - 5 of 5

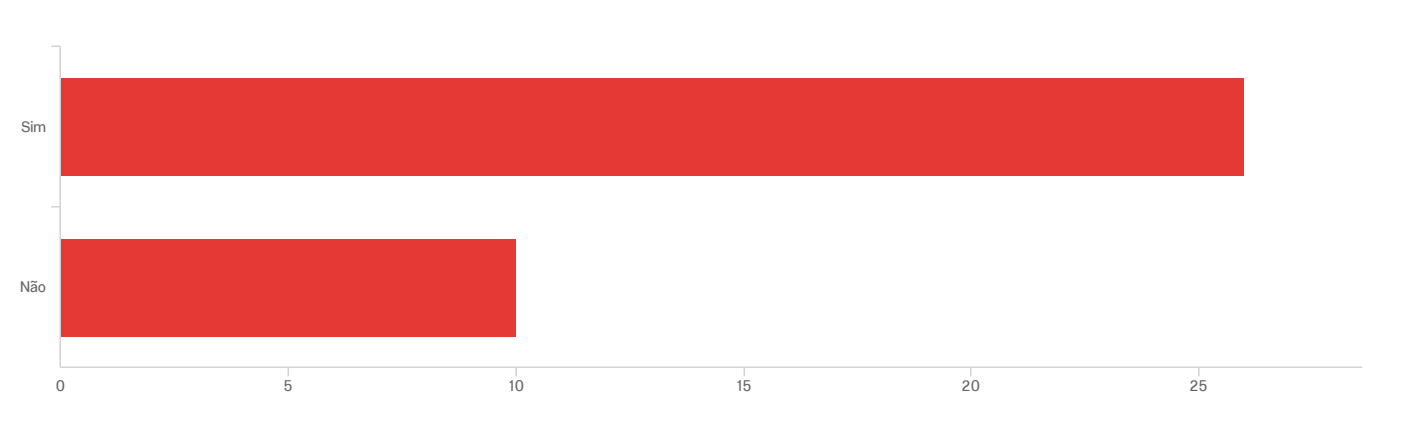
Q4 - Há quanto tempo fuma (ainda que com interrupções)?



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Há quanto tempo fuma (ainda que com interrupções)?	2.00	6.00	3.66	0.75	0.57	35

#	Field	Choice Count
1	Há menos de seis meses	0.00% 0
2	Há menos de um ano e mais de seis meses	5.71% 2
3	Há menos de cinco anos e mais de um ano	31.43% 11
4	Há menos de dez anos e mais de cinco anos	57.14% 20
5	Há menos de vinte anos e mais de dez anos	2.86% 1
6	Há mais de vinte anos	2.86% 1

Q6 - Gostaria de deixar de fumar?



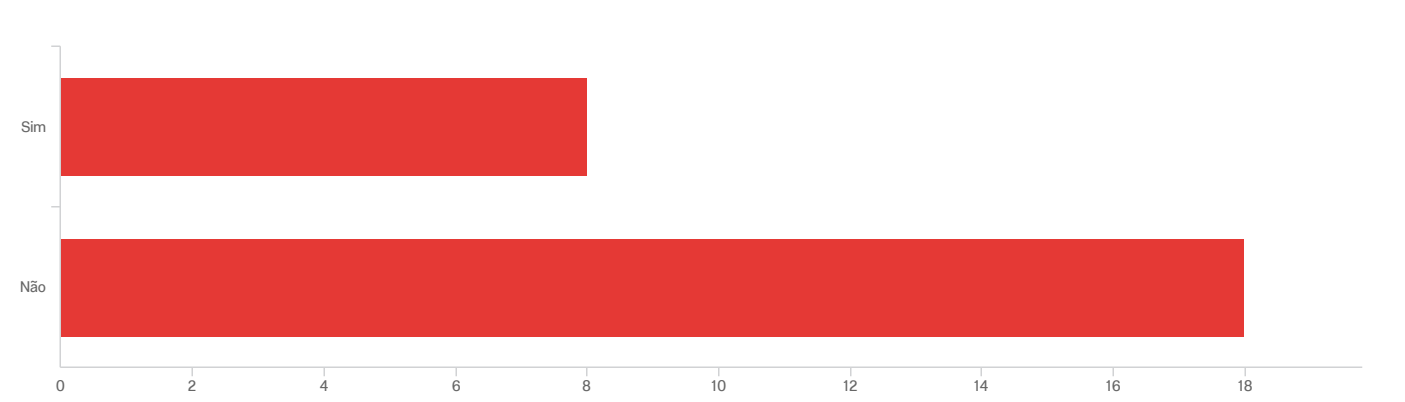
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Gostaria de deixar de fumar?	1.00	2.00	1.28	0.45	0.20	36

#	Field	Choice Count
1	Sim	72.22% 26
2	Não	27.78% 10

36

Showing rows 1 - 3 of 3

Q7 - Está activamente a tentar deixar de fumar?



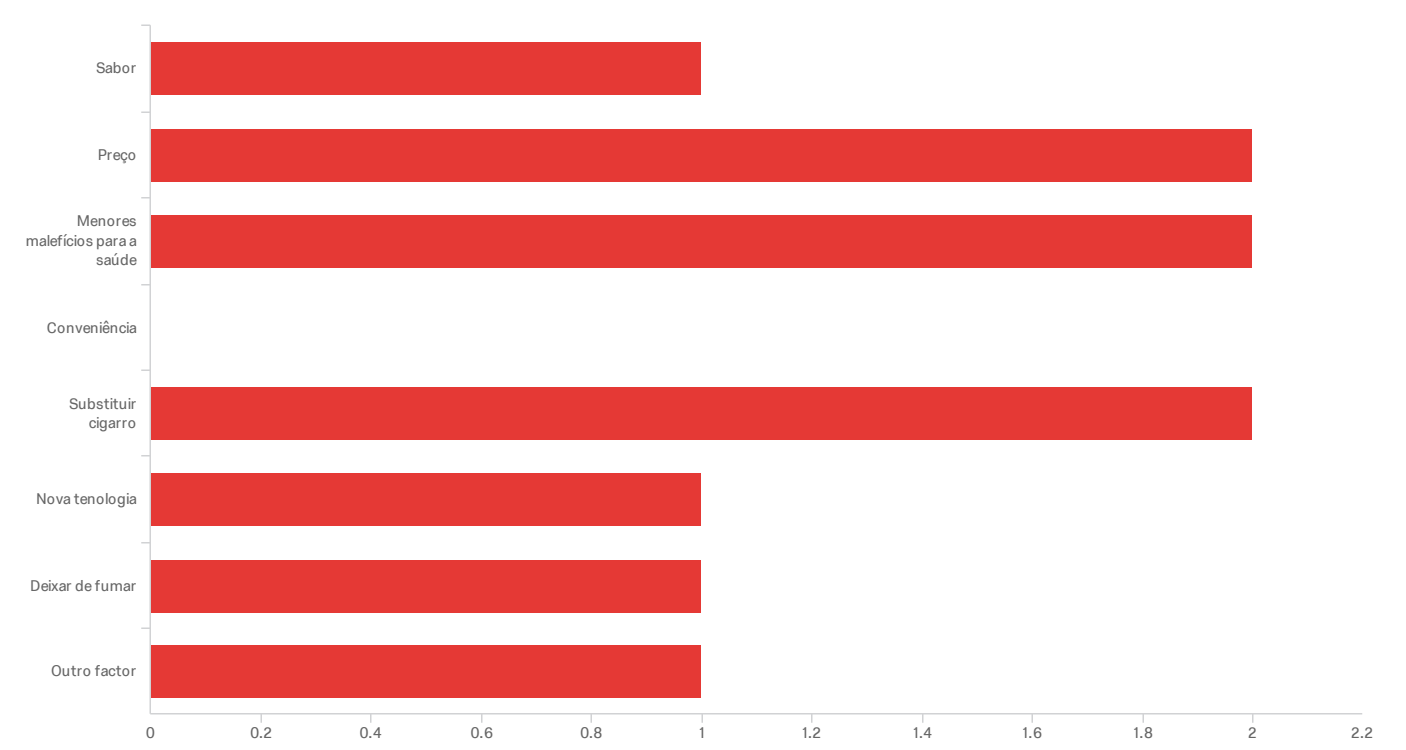
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Está activamente a tentar deixar de fumar?	1.00	2.00	1.69	0.46	0.21	26

#	Field	Choice Count
1	Sim	30.77% 8
2	Não	69.23% 18

26

Showing rows 1 - 3 of 3

Q18 - Que aspectos considerou quando escolheu fumar cigarro eletrônico?



#	Field	Choice Count
1	Sabor	10.00% 1
2	Preço	20.00% 2
3	Menores malefícios para a saúde	20.00% 2
4	Conveniência	0.00% 0
5	Substituir cigarro	20.00% 2
6	Nova tecnologia	10.00% 1
7	Deixar de fumar	10.00% 1
8	Outro factor	10.00% 1

10

Showing rows 1 - 9 of 9

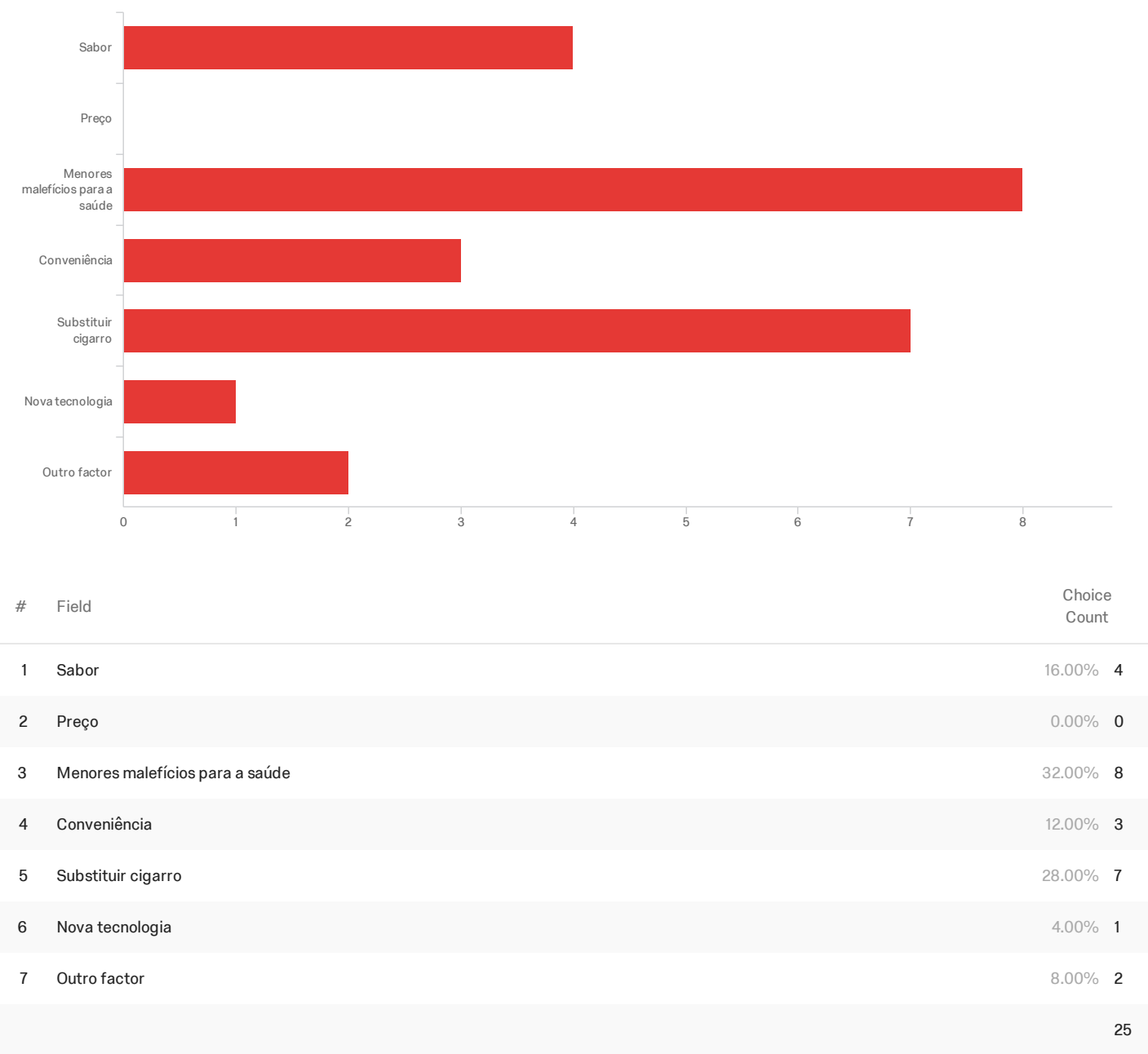
Outro factor

Outro factor

Cheiro na roupa

Showing records 1 - 1 of 1

Q19 - Que aspectos considerou quando escolheu fumar aquecedor de tabaco (i.e. IQOS)?



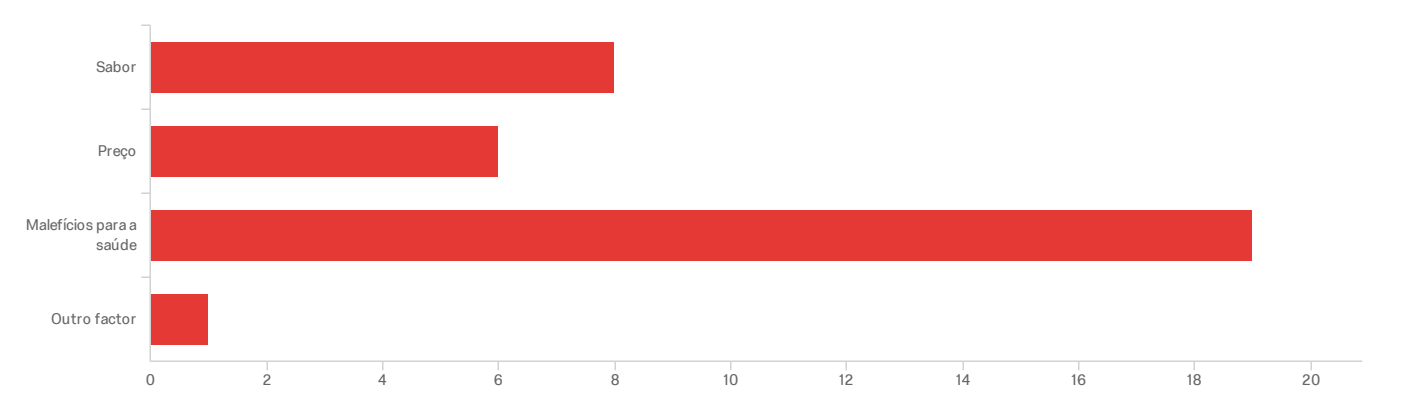
Showing rows 1 - 8 of 8

Outro factor

Outro factor
Cheiro na roupa
Ainda que não queira deixar de fumar gostaria de diminuir e de facto fumava em menos quantidade iQOS do que cigarros.

Showing records 1 - 2 of 2

Q20 - Que aspectos considerou quando escolheu deixar de fumar cigarros?



#	Field	Choice Count
1	Sabor	23.53% 8
2	Preço	17.65% 6
3	Malefícios para a saúde	55.88% 19
4	Outro factor	2.94% 1

34

Showing rows 1 - 5 of 5

Outro factor

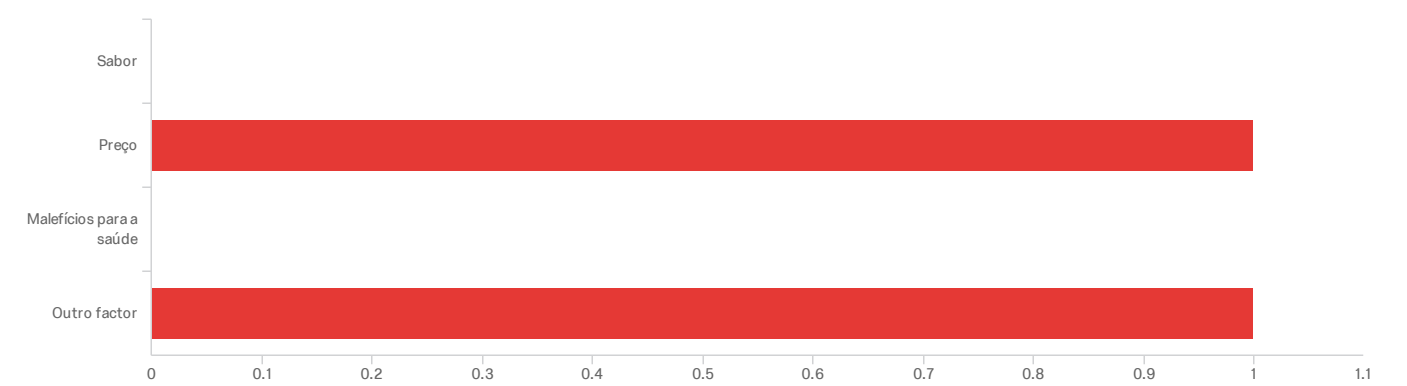
Outro factor

Cheiro

Showing records 1 - 1 of 1

Q21 - Que aspectos considerou quando escolheu deixar de fumar cigarro

eletrónico/vaporizador?



#	Field	Choice Count
1	Sabor	0.00% 0
2	Preço	50.00% 1
3	Malefícios para a saúde	0.00% 0
4	Outro factor	50.00% 1

2

Showing rows 1 - 5 of 5

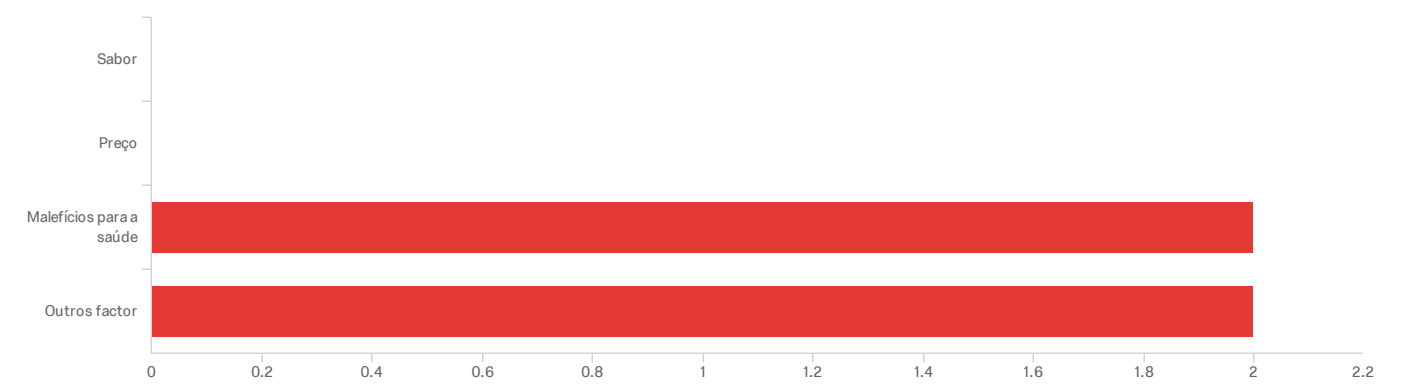
Outro factor

Outro factor

Satisfação

Showing records 1 - 1 of 1

Q9 - Que aspectos considerou quando escolheu deixar de fumar aquecedor de tabaco (i.e. IQOS)?



#	Field	Choice Count
1	Sabor	0.00% 0
2	Preço	0.00% 0
3	Malefícios para a saúde	50.00% 2
4	Outros factor	50.00% 2

4

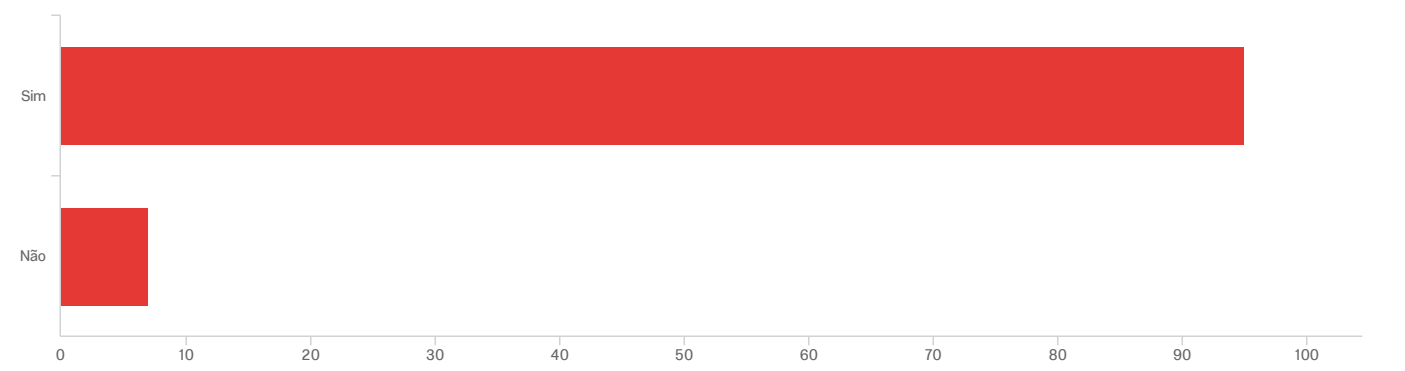
Showing rows 1 - 5 of 5

Outros factor

Outros factor
nao me saciava como os cigarros normais
Depois de algum tempo notei que era causador de enxaquecas. Deixei de fumar iQOS (continuando a fumar tabaco) e a frequência de enxaquecas diminuiu exponencialmente

Showing records 1 - 2 of 2

Q10 - Sabe o que é um cigarro eletrônico/vaporizador?



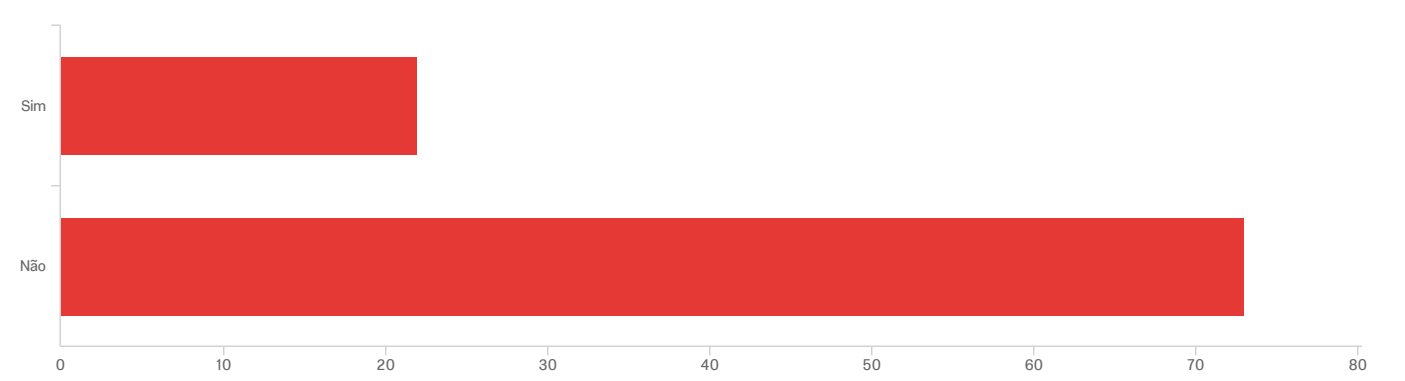
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Sabe o que é um cigarro eletrônico/vaporizador?	1.00	2.00	1.07	0.25	0.06	102

#	Field	Choice Count
1	Sim	93.14% 95
2	Não	6.86% 7

102

Showing rows 1 - 3 of 3

Q11 - Já considerou vir a fumar cigarro eletrônico/vaporizador?



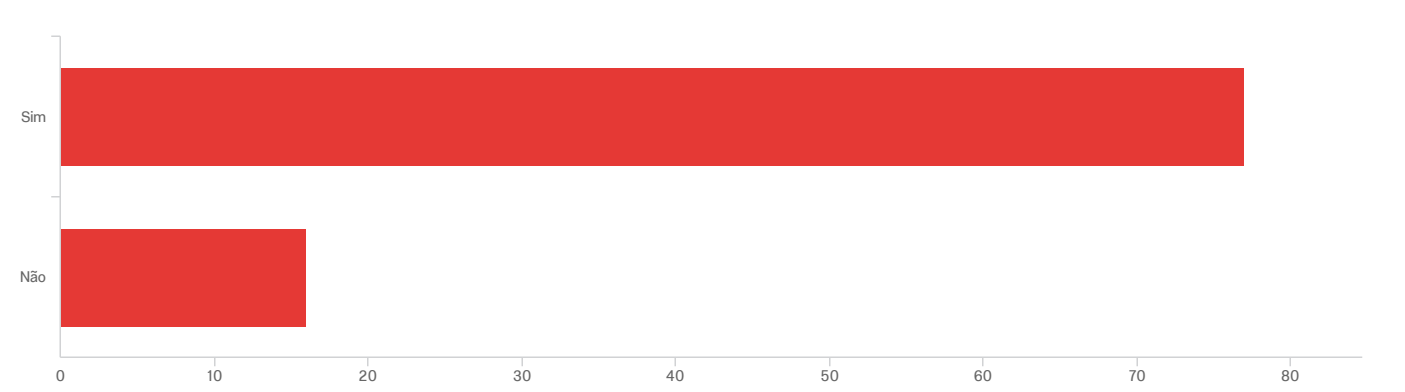
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Já considerou vir a fumar cigarro eletrônico/vaporizador?	1.00	2.00	1.77	0.42	0.18	95

#	Field	Choice Count
1	Sim	23.16% 22
2	Não	76.84% 73

95

Showing rows 1 - 3 of 3

Q12 - Sabe o que é um aquecedor de tabaco (i.e. IQOS)?



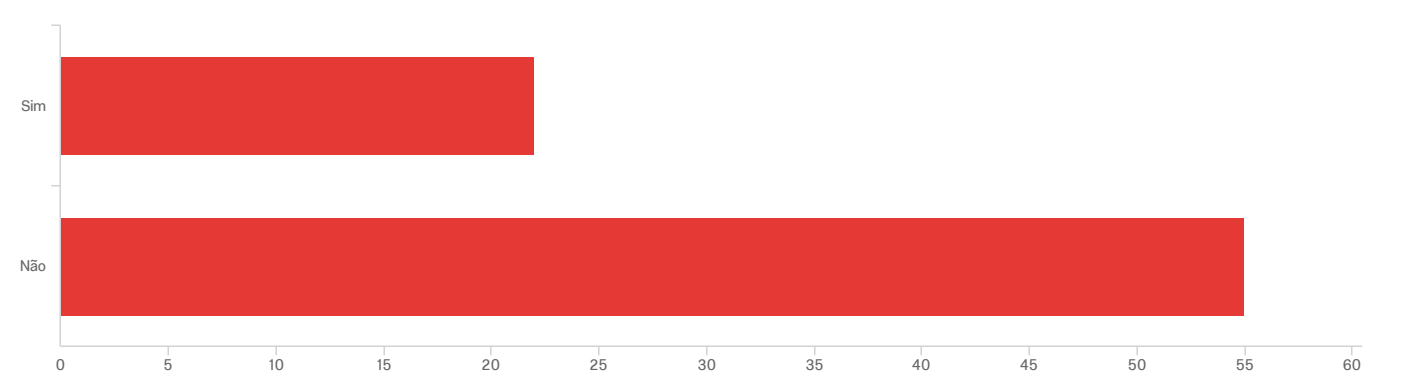
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Sabe o que é um aquecedor de tabaco (i.e. IQOS)?	1.00	2.00	1.17	0.38	0.14	93

#	Field	Choice Count
1	Sim	82.80% 77
2	Não	17.20% 16

93

Showing rows 1 - 3 of 3

Q13 - Já considerou vir a fumar um aquecedor de tabaco (i.e. IQOS)?



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Já considerou vir a fumar um aquecedor de tabaco (i.e. IQOS)?	1.00	2.00	1.71	0.45	0.20	77

#	Field	Choice Count
1	Sim	28.57% 22
2	Não	71.43% 55

77

Showing rows 1 - 3 of 3

Q14 - Qual a sua idade?

Qual a sua idade?
22
22
22
21
20
22
60
23
18
22
22
22
55
22
20
50
22
23
23
22
22
21

Qual a sua idade?

22

24

26

22

22

Lisboa

22

21

22

22

22

55

31

22

23

23

17

37

22

22

46

22

23

22

Qual a sua idade?

18

21

22

22

22

22

21

21

22 anos

25

26

25

25

22

22

22

22

21

22

21

26

23

21

22

Qual a sua idade?

21

22

22

21

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22

Qual a sua idade?

22

22

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23

22

22

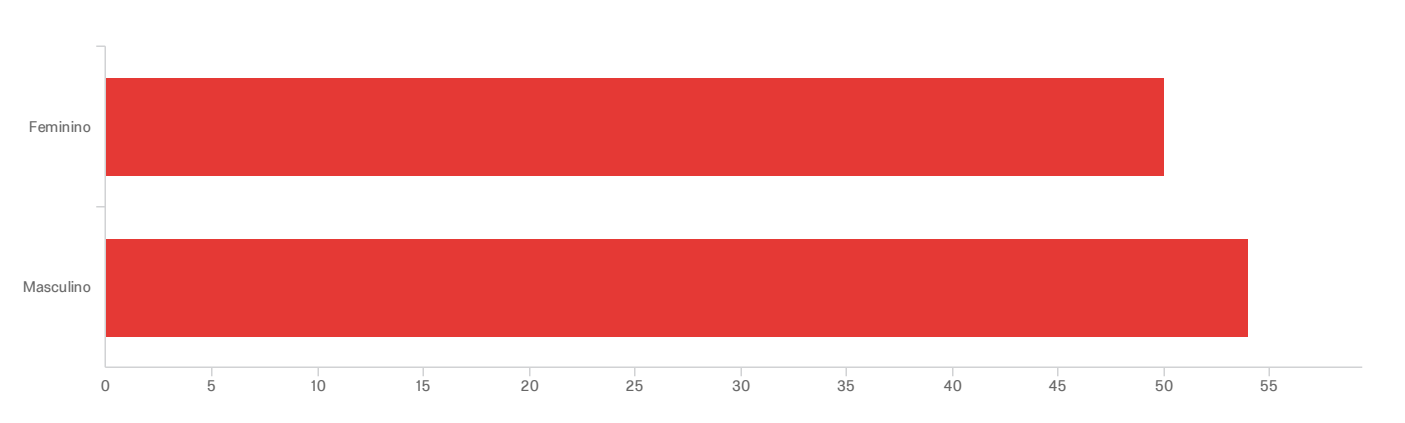
22

19

6

Showing records 1 - 104 of 104

Q15 - Sexo



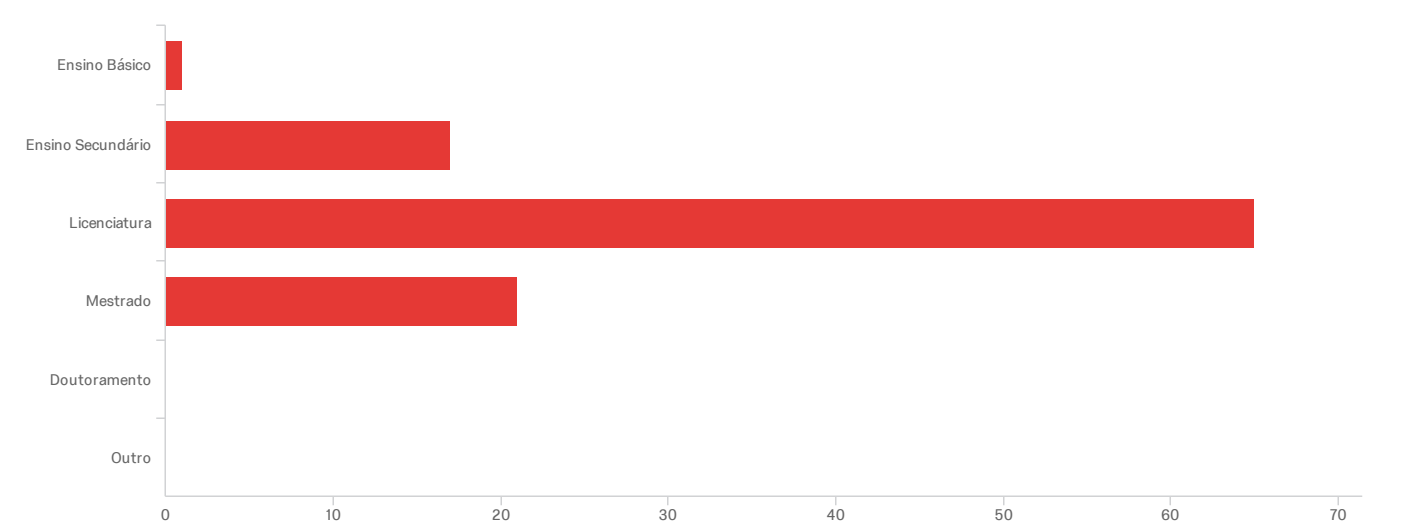
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Sexo	1.00	2.00	1.52	0.50	0.25	104

#	Field	Choice Count
1	Feminino	48.08% 50
2	Masculino	51.92% 54

104

Showing rows 1 - 3 of 3

Q16 - Qual o seu grau académico mais elevado que completou?



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Qual o seu grau académico mais elevado que completou? - Selected Choice	1.00	4.00	3.02	0.64	0.40	104

#	Field	Choice Count
1	Ensino Básico	0.96% 1
2	Ensino Secundário	16.35% 17
3	Licenciatura	62.50% 65
4	Mestrado	20.19% 21
5	Doutoramento	0.00% 0
6	Outro	0.00% 0

104

Showing rows 1 - 7 of 7

Outro

No Data
